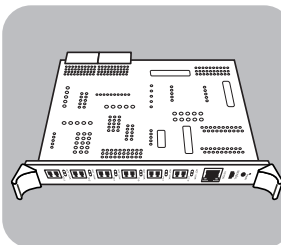


**HP**  
StorageWorks

EML E-Series  
e2400-FC 2G  
Interface  
Controller



**Caution:** Before continuing with this procedure, ensure the following components are upgraded to the necessary firmware versions:

- Library: 1.01.4 (5.62.00)
- Interface Manager: I155
- Command View TL: 1.5.05 (1.55)

Refer to the *HP StorageWorks Interface Manager and Command View User Guide* for detailed procedures on checking firmware revisions and making updates.



**Caution:** Parts can be damaged by electrostatic discharge. Keep parts in their containers until needed. Ensure that you are properly grounded when touching static sensitive components.



**Note:** This part is not hot-pluggable. It is necessary to power down the library to replace this part.



**Note:** An animation of the removal process can be found on the documentation CD shipped with the tape library.

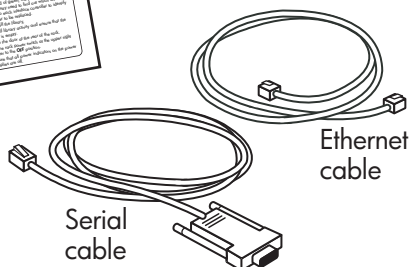
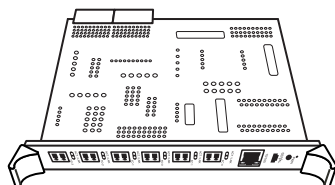
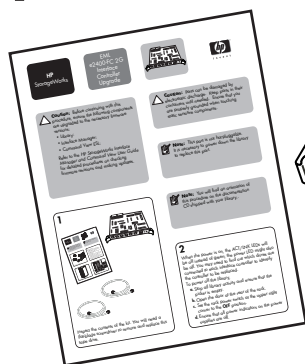


**Note:** If you are adding a new e2400-FC 2G Interface Controller, proceed to Step 6.



**Note:** When installing the interface controller, additional insertion force is needed to seat this card.

1



Inspect the contents of the kit.



**NOTE:** There are two different kits. A new installation kit will contain:

- 1) installation poster, 2) interface controller,
- 3) Ethernet cable, 4) serial cable.

A replacement kit will contain:

- 1) installation poster, 2) interface controller.

2

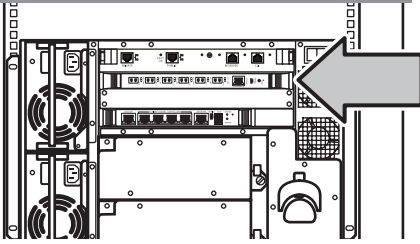
You may need to find out which drives are connected to each interface controller to identify the controller to be replaced.

To power off the library,

- a. Verify that all jobs have completed processing.
- b. Using the Operators Control Panel (OCP), select **Operations > Unlock Door**. The robot should now be parked.
- c. Open the back doors of the library.
- d. Press the main power switch to the **O** (Off) position.

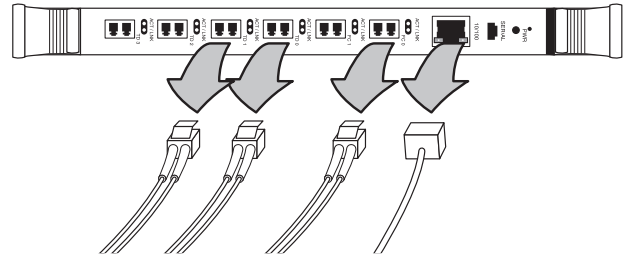
3

## Removal



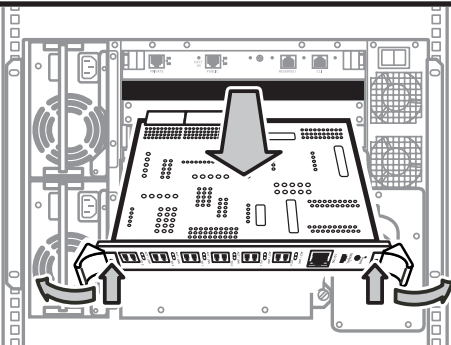
Locate the card in the second card cage slot in the base module or in one of the slots in the card cage expansion module. This card contains two HBA or switch FC ports, four tape drive FC ports, one Ethernet port, and one serial port. You will need a #1 Phillips screwdriver to remove and replace this card.

4



Noting cable locations for later reconnection, carefully disconnect the FC and Ethernet cables from the interface controller by pressing on the connector tabs and removing the cables.

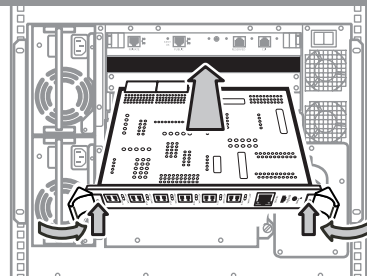
5



Use a #1 Phillips screwdriver to loosen the captive screws in the black ejector handles at both ends of the interface controller. Push the ejector handles outward, and then pull on them to remove the interface controller. Place the interface controller into an electrostatic bag.

6

## Installation



For a new installation, remove and discard the appropriate slot cover for each controller you will be installing. With the power LED on the right, slide the controller into the appropriate slot. Push the ejector handles inward to fully seat the controller. Using a #1 Phillips screwdriver, tighten the ejector handle screws.

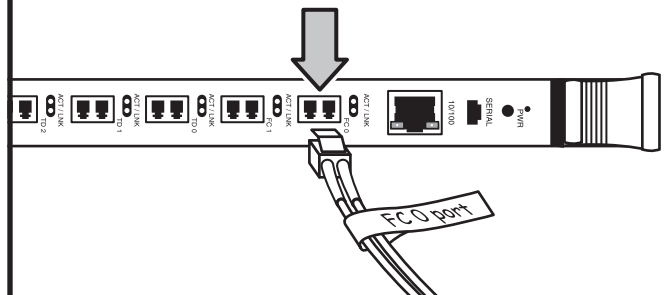
7



**NOTE:** This installation process assumes the tape drives have already been installed.

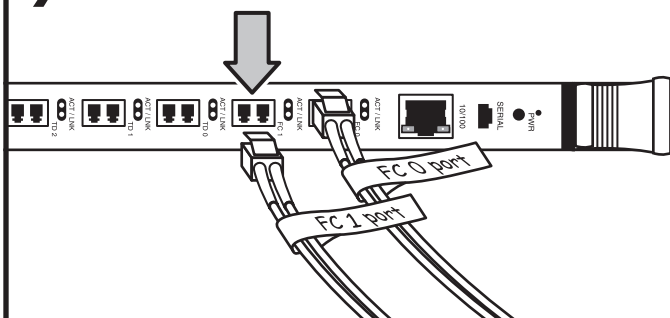
Connect the FC cable coming from each tape drive to a TD# port on the controller. Attach a label to each end of the cable to mark the port designations. If replacing a controller, make sure you are connecting the FC cable exactly as it was on the original controller.

8



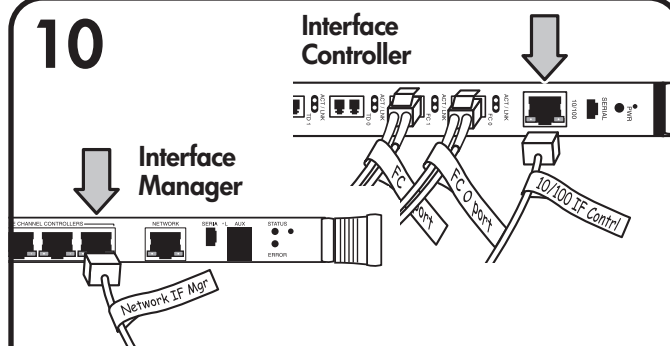
Plug an FC cable (not supplied) into the FC 0 port on the controller. Plug the other end into either the host bus adapter (HBA) port on a host, or into the FC switch that is connected to the host. Label both ends of the cable.

# 9



If a second host is available, plug an FC cable (not supplied) into the FC 1 port on the controller. Plug the other end into the HBA port on the host or into the FC switch. Label both ends of the cable.

# 10



Plug the Ethernet cable into the Ethernet port on the controller. Plug the other end of the Ethernet cable into one of the TO FIBRE CHANNEL CONTROLLERS ports on the Interface Manager card. Attach a label to each end of the Ethernet cable to mark the port designations.

# 11

After installing all library components, review the following checklist:

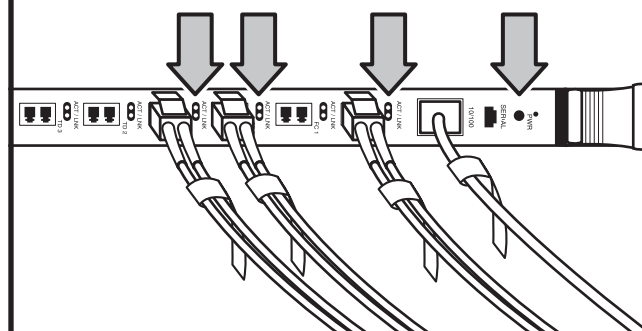
- ☐ 1. All tape drives have one FC cable connected to a port in a interface controller.
- ☐ 2. All interface controllers have one Ethernet connection to the Interface Manager card (TO FIBRE CHANNEL CONTROLLERS) port.
- ☐ 3. All interface controllers have one or two FC connections to the SAN through the FC0 or FC1 ports.
- ☐ 4. The Interface Manager should have one Ethernet connection from the CASCADE port to the PUBLIC port on the library robotics controller.
- ☐ 5. The Interface Manager should have one Ethernet connection from the NETWORK port to an Ethernet port on your management station.
- ☐ 6. Each power supply on the base module or tape drive expansion module is plugged into a power strip.
- ☐ 7. Each power strip is plugged into a power distribution unit.
- ☐ 8. Each power distribution unit is plugged into an AC outlet.

# 12

Power on the library.

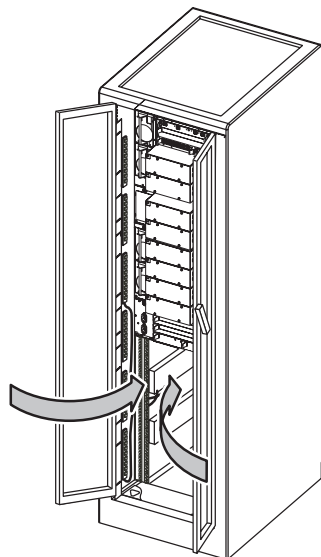
- a. Set the library power switch at the upper right corner to the **ON** position.
- b. Observe that all power indicators on the power supplies show that power was restored.
- c. Verify that the library robotics controller card **ACTIVE** indicator is lit.

# 13



Verify that the power LED and the Fibre Link LEDs on the interface controller are solid green. The link LEDs indicate a good connection.

# 14



Close the back doors of the library.

# 15

Use the Interface Manager's command-line interface or the HP StorageWorks Command View TL to verify detection of a new or replaced interface controller, and to perform configuration and firmware updates, if necessary.

## Getting help

- HP product information:  
<http://www.hp.com/products/tapestorage>
- HP technical support and phone numbers:  
<http://www.hp.com/support>
- HP StorageWorks Library and Tape Tools (L&TT) diagnostic software:  
<http://www.hp.com/support/tapetools>
- Interface Manager and HP StorageWorks Command View TL:  
<http://www.hp.com/support/cvtil>

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